PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correcte maintenance fee notificat	d below or directed oth	ng the Patent, advance or nerwise in Block 1, by (a	rders and notification of n a) specifying a new corres	naintenance fees wi spondence address;	ill be mailed and/or (b) in	to the current dicating a sepa	correspondence ad rate "FEE ADDRE	dress as SS" for	
CURRENT CORRESPONDE	NCE ADDRESS (Note: Use Bl	ock 1 for any change of address)	Fec(pape have	e: A certificate of n (s) Transmittal. This ers. Each additional e its own certificate	certificate caper, such of mailing or	annot be used for as an assignment transmission.	or any other accom nt or formal drawin	panying	
KRATZ, QUIN 1420 K Street, N 4th Floor WASHINGTON		C a n NUI.	2011 State addr.	Cert reby certify that this es Postal Service wi ressed to the Mail smitted to the USPT	ificate of Ma s Fee(s) Tran ith sufficient Stop ISSUE O (571) 273-	smittal is being postage for firs FEE address 2885, on the da	nission deposited with the t class mail in an e above, or being fa te indicated below.	United nvelope acsimile	
• .		ato		,		<u></u>	or's name)		
WASHINGTON, DC 20005			AAA.		· -		(5	(Date)	
. `		•						(Date)	
APPLICATION NO.	APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.			NO.	
10/589,129	10/589,129 08/11/2006		Tomoichiro Tamura		060546			5766	
FITLE OF INVENTION	: HEAT PUMP APPAR	ATUS AND OPERATING	G METHOD THEREOF						
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	EEE TOT	AL FEE(S) DUE	DATE DUI	<u> </u>	
			\$300	\$0	FEE TOIL	\$1810	06/09/201	-	
nonprovisional	NO	\$1510	\$300	• •	011 AWONDAI	F2 00000028 (
EXAM	INER	ART UNIT	CLASS-SUBCLASS	01 FC:15	501	1510.00 DA			
CARTON, MICHAEL 3748			062-324100	02 FC:1	584	300.00 DA		f ar	
CFR 1.363). Change of corresponded and Change of Corresponded and Change of Corresponding and Change of C	ence address or indication ondence address (or Cha 3/122) attached. ication (or "Fee Address 2 or more recent) attache	inge of Correspondence	2. For printing on the patent front page, half 1 (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.						
3. ASSIGNEE NAME A	ND RESIDENCE DATA	A TO BE PRINTED ON T	THE PATENT (print or type	oe)				11.6.3	
PLEASE NOTE: Unl	ess an assignee is ident	ified below, no assignee	data will appear on the part of the part o	atent. If an assigne	e is identifie	d below, the de	ocument has been f	filed for	
(A) NAME OF ASSIC		neuon or ans form is ive	(B) RESIDENCE: (CITY		OUNTRY)			:	
PANASONIC CO		ĸ	adoma-shi, Japa	an				: ;	
			•		_			- ;	
Please check the appropri	ate assignce category or	categories (will not be pr	inted on the patent):	Individual X J Con	rporation or c	ther private gro	up entity Gove	ernment:	
4a. The following fee(s) a K Issue Fee Rubblication Fee Ob	re submitted: o small entity discount p	b. Payment of Fcc(s): (Please first reapply any previously paid issue fee shown above) A check is enclosed. Payment by credit card. Form PTO-2038 is attached.							
Advance Order - #		The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 01-2340 (enclose an extra copy of this form).							
a. Applicant claims	tus (from status indicated s SMALL ENTITY statu	is. See 37 CFR 1.27.	b. Applicant is no long						
NOTE: The Issue Fee and	d Publication Fee (if requested Sta	uired) will not be accepted tes Patent and Trademark	d from anyone other than the	he applicant; a regis	tered attorne	y or agent; or th	e assignee or other	party in	
Authorized Signature	Nich	Bromer		Date_June	6, 201	1		1:	
Typed or printed name	-			Registration No				4.3 (V)	
This collection of informan application. Confident	ation is required by 37 C iality is governed by 35	U.S.C. 122 and 37 CFR	on is required to obtain or r	etain a benefit by th	e public which	ch is to file (and nplete, including	by the USPTO to p	process)	

submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 or <u>Fax</u> (571)-273-2885

appropriate. All further	correspondence including ed below or directed of	ng the Patent, advance of	orders and notification of r	naintenance fees wil	I be mailed to the curren	t correspondence address as parate "FEE ADDRESS" for						
23850	7590 03/09	lock I for any change of address	Fee(Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.								
1420 K Street, N 4th Floor			I he Stat addition trans	reby certify that this es Postal Service wit	ficate of Mailing or Tran Fee(s) Transmittal is bein h sufficient postage for fi Stop ISSUE FEE address O (571) 273-2885, on the d	smission g deposited with the United state class mail in an envelope above, or being facsimile late indicated below.						
WASHINGTON	I, DC 20005	B			((Depositor's name)						
		TENTS THE	102MARKO	1.04	···	(Signature)						
*			3051			(Date)						
APPLICATION NO.	APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.		CONFIRMATION NO.						
10/589,129			Tomoichiro Tamura	<u></u>	060546	5766						
TITLE OF INVENTION: HEAT PUMP APPARATUS AND OPERATING METHOD THEREOF												
	• ;		•	·		• •						
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE TOTAL FEE(S) DUE	DATE DUE						
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/09/2011						
EXAM	INER	ART UNIT	CLASS-SUBCLASS		•	ा <u>ः विश्व</u> और <mark>व</mark> रि						
CARTON,	MICHAEL	3748	062-324100			t use life t 12" for						
1. Change of correspondence address or indication of "Fee Address" (37 2. For printing on the patent front page, list CFR 1.363). (1) the names of up to 3 registered patent attorneys 1 KRATZ, OUINTOS												
·	ondence address (or Cha	nge of Correspondence	or agents OR, alternatively,									
"Fee Address" ind	ication (or "Fee Address 2 or more recent) attach	" Indication form ed. Use of a Customer	(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.									
3. ASSIGNEE NAME A	ND RESIDENCE DATA	A TO BE PRINTED ON	THE PATENT (print or typ	e)		500 Sept.						
PLEASE NOTE: Uni	ess an assignee is ident h in 37 CFR 3.11. Com	ified below, no assignee	data will appear on the pa	itent. If an assignee	is identified below, the d	locument has been filed for						
(A) NAME OF ASSIG			(B) RESIDENCE: (CITY			 						
PANASONIC CO	ORPORATION	F	Kadoma-shi, Japa	an								
Please check the appropri	ate assignee category or	categories (will not be p	printed on the patent):	Individual 🛣 Corp	oration or other private gr	oup entity Government						
4a. The following fee(s) a	are submitted:	4	b. Payment of Fee(s): (Plea	se first reapply any	previously paid issue fee	shown above)						
Issue Fee			A check is enclosed.									
Publication Fee (N Advance Order - #	o small entity discount p	permitted)	Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any									
Advance Order - #	of Copies		overpayment, to Depos	sit Account Number	01-2340 (enclose a	in extra copy of this form).						
	us (from status indicated s SMALL ENTITY statu	· ·	☐ h Applicant is no lone	or claiming SMALL	ENTITY status. See 37 C	ED 1 27(a)(2)						
NOTE: The Issue Fee and	l Publication Fee (if requ	uired) will not be accepte	ed from anyone other than the			he assignee or other party in						
nterest as shown by the r	ecords of the United Sta	tes Patent and Trademark	k Office.			147 65						
Authorized Signature	/Vich	Dromer	-	Date June	6, 2011							
Typed or printed name				Registration No.		. 1546) - 1666 - 1768						
This collection of information application. Confident	ation is required by 37 C	FR 1.311. The information of the U.S.C. 122 and 37 CFR	on is required to obtain or re 1.14. This collection is esti	etain a benefit by the mated to take 12 mi	public which is to file (an nutes to complete, including	d by the USPTO to process)						

an application. Confidentiality is governed by 35 0.3.C. 122 and 37 CFR 114. This confection is estimated to take 12 infinites to complete, including gathering, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.